

REMARKS

This is in response to the Office Action that was mailed on November 2, 2002. The recitation of claim 3 has been incorporated into claim 1. New claim 10 is based upon such disclosure as that appearing on page 5 of the specification and in the working Examples. No new matter has been introduced. Claims 1 and 4-10 are in the case.

Rejection Over Nielson

Claims 1-8 were rejected as being unpatentable over US 6,224,099 (Nielson). It is respectfully submitted that this rejection is not applicable to the claims in their present form. The present invention comprises a synergistic combination of a fuel with an ammonium perchlorate oxidizing agent and a chlorine neutralizer. The compositions of the present invention differ significantly from the compositions specifically disclosed in Nielson's Examples. Nielson fails to show the use of ammonium perchlorate, or of an additive like the chlorine neutralizer. In any event, the compositions of the present invention act synergistically to provide an unexpected, beneficial reduction in combustion residues while at the same time providing enhanced gas-producing efficiency. Nothing in the Nielson reference teaches or suggests how this combination of properties could be achieved. Accordingly, the rejection of record should be withdrawn, and this application should be passed to Issue.

The Examiner is respectfully requested to withdraw the requirement for restriction between the closely related inventions of composition claims 1, 4-8, and 10 on the one hand and method claim 10 on the other hand.

Conclusion


If the Examiner has any questions concerning this application, he is requested to contact Richard Gallagher, Reg. No. 28,781, at (703) 205-8000 in the Washington, D.C. area.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants hereby petition for an extension of three (3) months to May 2, 2002, in which to file a reply to the Office Action. The required fee of \$920.00 is enclosed herewith.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment: Version with Markings to Show Changes Made

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claim 2 has been canceled.

The claims have been amended as follows:

1. (amended) A gas generating composition comprising a fuel made of nitroguanidine, guanidine nitrate, or a mixture thereof, [and] an ammonium perchlorate oxidizing agent, and a chlorine neutralizer.
4. (amended) The gas generating composition [according to] of claim 1 [3], wherein the chlorine neutralizer is a compound containing a cation selected from the group consisting of alkali metals and alkaline earth metals.
5. (amended) The gas generating composition [according to] of claim 1, wherein the content of the fuel is between 35 and 80% by weight, and the content of the oxidizing agent is between 65 and 20% by weight.
6. (amended) The gas generating composition [according to] of claim 1, which further comprises a binder or a combustion catalyst as an additive.
7. (amended) The gas generating composition [according to] of claim 1, wherein an amount of a combustion residue based on an amount of a gas generated is 12 g/mol or less.

8. (amended) An inflator system using the gas generating composition [according to] of claim 1.

9. (amended) A gas generating method using a gas generated by burning a fuel, in which the gas generating composition [according to] of claim 1 is used as a fuel to decrease an amount of a combustion residue and improve a gas output.

Claim 10 has been added.